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Kinetics and thermochemistry of [2π + 2σ + 2σ]-cycloaddition of quadricyclane to tetracyanoethylene

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Abstract

© 2016, Pleiades Publishing, Ltd.Kinetic data for the unusual [2π + 2σ + 2σ]-cycloaddition of quadricyclane to tetracyanoethylene in toluene have been obtained for the first time. The same reaction in 1,4-dioxane appears to be the most exothermic among known cycloaddition reactions. The entropy of activation and reaction volume differ only slightly from the corresponding parameters of conventional Diels–Alder reactions.

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